

Data Sheet

Customer:

Product: Shielded Molding SMD Power Inductor– SDB Series

Sizes.: 0420/0520/0530/0620/0625/0630/1040/1340/ 1350/1365

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VIKING TECH CORPORATION
光韻科技股份有限公司
No.70, Guangfu N. Rd., Hukou
Township, Hsinchu County
303, Taiwan (R.O.C)

TEL:886-3-5972931
FAX:886-3-5972935•886-3-5973494
E-mail:sales@viking.com.tw

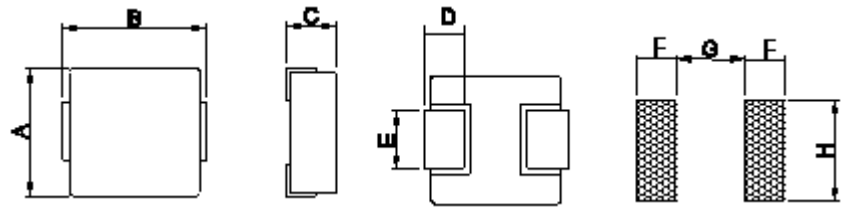
VIKING TECH CORPORATION KAOHSIUNG BRANCH
光韻科技股份有限公司高雄分公司
No.248-3, Sin-Sheng Rd., Cian-Jhen Dist., Kaohsiung,
806, Taiwan

TEL:886-7-8217999
FAX:886-7-8228229
E-mail:sales@viking.com.tw

VIKING ELECTRONICS (WUXI) CO., LTD.
光韻電子(無錫)有限公司
No.22 Xixia Road, Machinery & Industry Park,
National Hi-Tech Industrial Development Zone
of Wuxi, Wuxi, Jiangsu Province, China
Zip Code:214028
TEL:86-510-85203339
FAX:86-510-85203667•86-510-85203977
E-mail:china@viking.com.tw

| Produced by (QC) | Checked (QC) | Approved by (QC) | Prepared by (Sales) | Accepted by (Customer) |
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| <i>Kris Chen</i> | <i>Ben Chang</i> | <i>Ben Chang</i> | | |

Shielded Molding SMD Power Inductor



■ Features

- Large current adaptable
- Footprint compatible with most standard
- Lower temperature rise at large current
- Low profile, low DCR
- Available on tape and reel for auto surface mounting

■ Applications

- Laptop / Desktop / Notebook Computers
- Terminals / Portable Servers / Workstation
- DC/DC Converter in Distributed Power Systems or VRM Applications
- Thin Type On-board Power Supply Module for Exchanger

■ Characteristics

- Saturation Rated Current would cause inductance to drop approximately 25%(0402 drop approximately 30%)
- Temperature Rise Current would cause an approximately ΔT of 40°C
- All test data is referred to 25°C ambient

■ Dimensions

Unit: mm

| Type | A | B | C max. | D | E | F | G | H |
|---------|----------|----------|--------|---------|---------|-----|-----|-----|
| SDB0420 | 4.1±0.5 | 4.5±0.5 | 2.1 | 0.8±0.5 | 2.0±0.5 | 1.5 | 2.5 | 2.2 |
| SDB0520 | 5.0±0.5 | 5.5±0.5 | 2.0 | 1.2±0.5 | 2.0±0.5 | 2.0 | 3.0 | 2.5 |
| SDB0530 | 5.0±0.5 | 5.5±0.5 | 3.0 | 1.2±0.5 | 2.0±0.5 | 2.0 | 3.0 | 2.5 |
| SDB0620 | 6.8 max | 7.6 max | 2.0 | 1.6±0.5 | 2.9±0.5 | 2.5 | 3.7 | 3.5 |
| SDB0625 | 6.8 max | 7.6 max | 2.5 | 1.6±0.5 | 2.9±0.5 | 2.5 | 3.7 | 3.5 |
| SDB0630 | 6.8 max | 7.6 max | 3.0 | 1.6±0.5 | 2.9±0.5 | 2.5 | 3.7 | 3.5 |
| SDB0650 | 6.8 max | 7.6 max | 5.0 | 1.6±0.5 | 2.9±0.5 | 2.5 | 3.7 | 3.5 |
| SDB1040 | 10.4 max | 11.5 max | 4.0 | 2.2±0.5 | 2.9±0.5 | 3.5 | 6.0 | 4.0 |
| SDB1340 | 13.0 max | 14.2 max | 4.0 | 2.3±0.5 | 3.6±0.5 | 2.9 | 7.9 | 5.0 |
| SDB1350 | 13.0 max | 14.2 max | 5.0 | 2.3±0.5 | 3.6±0.5 | 2.9 | 7.9 | 5.0 |
| SDB1365 | 13.0 max | 14.2 max | 6.5 | 2.3±0.5 | 3.6±0.5 | 2.9 | 7.9 | 5.0 |

■ Inductance and rated current ranges

- SDB0420 0.10μH~3.3μH @Saturation Current: 22~4A
- SDB0520 0.10μH~4.7μH @Saturation Current: 45~5A
- SDB0530 0.10μH~4.7μH @Saturation Current: 27~8.2A
- SDB0620 0.10μH~4.7μH @Saturation Current: 40~8A
- SDB0625 0.10μH~10μH @Saturation Current: 50~7A
- SDB0630 0.10μH~22μH @Saturation Current: 60~4.5A
- SDB0650 0.56μH~10μH @Saturation Current: 12~4.5A
- SDB1040 0.19μH~15μH @Saturation Current: 90~8A
- SDB1340 0.10μH~10μH @Saturation Current: 84~14A
- SDB1350 0.10μH~10μH @Saturation Current: 118~16A
- SDB1365 0.10μH~22μH @Saturation Current: 120~10A

– Test equipment:

L: HP4284A LCR meter

DCR: Milli-ohm meter

– Electrical specifications at 25°C

– Operating temperature rang: -40°C~+125°C

Shielded Molding SMD Power Inductor

Product Identification

| | | | | |
|--------------|---|--------------------|------------------|--|
| SDB | 0630 | M | T | 100 |
| Product Type | Dimensions (AxC) | Inductor Tolerance | Packaging Style | Inductance |
| | 0420: 4.1×2.1 0520: 5.0×2.0 0530: 5.0×3.0 0620: 6.8×2.0 0625: 6.8×2.5 0630: 6.8×3.0 0650: 6.8×5.0 1040: 10.4×4.0 1340: 13.0×4.0 1350: 13.0×5.0 1365: 13.0×6.5 | M: ±20% | T: Tape and Reel | R10: 0.10μH 1R0: 1.0μH 100: 10μH |

Electrical Characteristics

SDB0420 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0420□TR10 | 0.10 | M | 100KHz, 0.25V | 4.0 | 22.0 | 12.0 |
| SDB0420□TR22 | 0.22 | M | 100KHz, 0.25V | 6.6 | 12.5 | 9.0 |
| SDB0420□TR47 | 0.47 | M | 100KHz, 0.25V | 14 | 9.5 | 7.0 |
| SDB0420□TR56 | 0.56 | M | 100KHz, 0.25V | 16 | 8.5 | 6.5 |
| SDB0420□TR68 | 0.68 | M | 100KHz, 0.25V | 18 | 9.0 | 6.0 |
| SDB0420□T1R0 | 1.0 | M | 100KHz, 0.25V | 27 | 7.0 | 4.5 |
| SDB0420□T1R5 | 1.5 | M | 100KHz, 0.25V | 46 | 6.0 | 4.0 |
| SDB0420□T2R2 | 2.2 | M | 100KHz, 0.25V | 58 | 5.0 | 3.0 |
| SDB0420□T3R3 | 3.3 | M | 100KHz, 0.25V | 87 | 4.0 | 2.5 |

SDB0520 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0520□TR10 | 0.10 | M | 100KHz, 0.25V | 3.9 | 45.0 | 17.0 |
| SDB0520□TR22 | 0.22 | M | 100KHz, 0.25V | 5.2 | 22.0 | 15.0 |
| SDB0520□TR33 | 0.33 | M | 100KHz, 0.25V | 8.2 | 25.0 | 12.0 |
| SDB0520□TR47 | 0.47 | M | 100KHz, 0.25V | 9.4 | 21.0 | 11.5 |
| SDB0520□TR68 | 0.68 | M | 100KHz, 0.25V | 12.4 | 15.0 | 10.0 |
| SDB0520□T1R0 | 1.0 | M | 100KHz, 0.25V | 20.0 | 16.0 | 7.0 |
| SDB0520□T2R2 | 2.2 | M | 100KHz, 0.25V | 50.1 | 9.5 | 4.2 |
| SDB0520□T3R3 | 3.3 | M | 100KHz, 0.25V | 85.5 | 8.5 | 3.3 |
| SDB0520□T4R7 | 4.7 | M | 100KHz, 0.25V | 116.6 | 5.0 | 2.8 |

Shielded Molding SMD Power Inductor

■ Electrical Characteristics

SDB0530 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0530□TR10 | 0.10 | M | 100KHz, 0.25V | 3.16 | 27.0 | 23.0 |
| SDB0530□TR22 | 0.22 | M | 100KHz, 0.25V | 4.52 | 21.0 | 15.5 |
| SDB0530□TR33 | 0.33 | M | 100KHz, 0.25V | 5.56 | 19.0 | 13.7 |
| SDB0530□TR47 | 0.47 | M | 100KHz, 0.25V | 7.04 | 16.0 | 12.2 |
| SDB0530□TR68 | 0.68 | M | 100KHz, 0.25V | 8.96 | 13.5 | 10.2 |
| SDB0530□TR82 | 0.82 | M | 100KHz, 0.25V | 11.9 | 13.0 | 9.3 |
| SDB0530□T1R0 | 1.0 | M | 100KHz, 0.25V | 13.7 | 12.0 | 9.2 |
| SDB0530□T1R5 | 1.5 | M | 100KHz, 0.25V | 20.7 | 11.0 | 7.2 |
| SDB0530□T2R2 | 2.2 | M | 100KHz, 0.25V | 29.2 | 10.0 | 5.8 |
| SDB0530□T3R3 | 3.3 | M | 100KHz, 0.25V | 54.7 | 8.5 | 5.0 |
| SDB0530□T4R7 | 4.7 | M | 100KHz, 0.25V | 77.5 | 8.2 | 3.5 |

SDB0620 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0620□TR10 | 0.10 | M | 100KHz, 0.25V | 3.5 | 40.00 | 18.00 |
| SDB0620□TR15 | 0.15 | M | 100KHz, 0.25V | 5.2 | 38.00 | 15.00 |
| SDB0620□TR22 | 0.22 | M | 100KHz, 0.25V | 5.7 | 26.00 | 14.00 |
| SDB0620□TR33 | 0.33 | M | 100KHz, 0.25V | 7.0 | 18.00 | 12.00 |
| SDB0620□TR47 | 0.47 | M | 100KHz, 0.25V | 9.3 | 18.00 | 11.00 |
| SDB0620□TR68 | 0.68 | M | 100KHz, 0.25V | 13.9 | 17.00 | 9.00 |
| SDB0620□TR82 | 0.82 | M | 100KHz, 0.25V | 15.9 | 17.00 | 8.00 |
| SDB0620□T1R0 | 1.0 | M | 100KHz, 0.25V | 18.3 | 14.00 | 7.00 |
| SDB0620□T1R5 | 1.5 | M | 100KHz, 0.25V | 34.0 | 13.00 | 4.00 |
| SDB0620□T2R2 | 2.2 | M | 100KHz, 0.25V | 46.0 | 11.50 | 3.75 |
| SDB0620□T3R3 | 3.3 | M | 100KHz, 0.25V | 60.1 | 10.00 | 3.25 |
| SDB0620□T4R7 | 4.7 | M | 100KHz, 0.25V | 78.0 | 8.00 | 3.00 |

SDB0625 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0625□TR10 | 0.10 | M | 100KHz, 0.25V | 1.7 | 50.0 | 30.0 |
| SDB0625□TR22 | 0.22 | M | 100KHz, 0.25V | 3.2 | 34.0 | 21.0 |
| SDB0625□TR33 | 0.33 | M | 100KHz, 0.25V | 4.1 | 22.0 | 18.0 |
| SDB0625□TR47 | 0.47 | M | 100KHz, 0.25V | 6.5 | 21.0 | 13.5 |
| SDB0625□TR68 | 0.68 | M | 100KHz, 0.25V | 9.4 | 18.0 | 11.0 |
| SDB0625□TR82 | 0.82 | M | 100KHz, 0.25V | 11.8 | 17.0 | 10.0 |
| SDB0625□T1R0 | 1.0 | M | 100KHz, 0.25V | 14.2 | 16.0 | 9.0 |
| SDB0625□T1R5 | 1.5 | M | 100KHz, 0.25V | 21.2 | 15.0 | 7.5 |
| SDB0625□T2R2 | 2.2 | M | 100KHz, 0.25V | 34.0 | 14.0 | 6.5 |
| SDB0625□T3R3 | 3.3 | M | 100KHz, 0.25V | 51.6 | 13.0 | 5.0 |
| SDB0625□T4R7 | 4.7 | M | 100KHz, 0.25V | 63.0 | 10.0 | 4.5 |
| SDB0625□T6R8 | 6.8 | M | 100KHz, 0.25V | 95.0 | 9.0 | 3.5 |
| SDB0625□T8R2 | 8.2 | M | 100KHz, 0.25V | 106.0 | 8.0 | 3.0 |
| SDB0625□T100 | 10 | M | 100KHz, 0.25V | 129.0 | 7.0 | 2.5 |

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■Electrical Characteristics

SDB0630 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|----------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0630□TR10 | 0.10 | M | 100KHz, 0.25V | 1.7 | 60.0 | 32.5 |
| SDB0630□TR22 | 0.22 | M | 100KHz, 0.25V | 2.8 | 40.0 | 23.0 |
| SDB0630□TR33 | 0.33 | M | 100KHz, 0.25V | 3.9 | 30.0 | 20.0 |
| SDB0630□TR47 | 0.47 | M | 100KHz, 0.25V | 4.2 | 26.0 | 17.5 |
| SDB0630□TR56 | 0.56 | M | 100KHz, 0.25V | 4.5 | 24.5 | 16.5 |
| SDB0630□TR68 | 0.68 | M | 100KHz, 0.25V | 5.5 | 25.0 | 15.5 |
| SDB0630□TR82 | 0.82 | M | 100KHz, 0.25V | 8.0 | 24.0 | 13.0 |
| SDB0630□T1R0 | 1.0 | M | 100KHz, 0.25V | 10.0 | 22.0 | 11.0 |
| SDB0630□T1R5 | 1.5 | M | 100KHz, 0.25V | 15.0 | 18.0 | 9.0 |
| SDB0630□T2R2 | 2.2 | M | 100KHz, 0.25V | 20.0 | 14.0 | 8.0 |
| SDB0630□T3R3 | 3.3 | M | 100KHz, 0.25V | 30.0 | 13.5 | 6.0 |
| SDB0630□T4R7 | 4.7 | M | 100KHz, 0.25V | 40.0 | 10.0 | 5.5 |
| SDB0630□T6R8 | 6.8 | M | 100KHz, 0.25V | 60.0 | 8.0 | 4.5 |
| SDB0630□T8R2 | 8.2 | M | 100KHz, 0.25V | 68.0 | 7.5 | 4.0 |
| SDB0630□T100 | 10 | M | 100KHz, 0.25V | 105.0 | 7.0 | 3.0 |
| SDB0630□T220 | 22 | M | 100KHz, 0.25V | 160.0 | 4.5 | 2.5 |
| SDB0630□T220-1 | 22 | M | 100KHz, 1V | 190.0 | 3.5 Typ | 2.0 Typ |

SDB0650 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB0650□TR56 | 0.56 | M | 100KHz, 0.25V | 3.6 | 12.0 | 20.0 |
| SDB0650□TR68 | 0.68 | M | 100KHz, 0.25V | 4.5 | 11.5 | 18.0 |
| SDB0650□TR82 | 0.82 | M | 100KHz, 0.25V | 4.9 | 13.0 | 16.5 |
| SDB0650□T1R0 | 1.0 | M | 100KHz, 0.25V | 6.5 | 15.0 | 13.0 |
| SDB0650□T1R5 | 1.5 | M | 100KHz, 0.25V | 9.0 | 12.0 | 12.0 |
| SDB0650□T2R2 | 2.2 | M | 100KHz, 0.25V | 13.6 | 10.0 | 10.0 |
| SDB0650□T3R3 | 3.3 | M | 100KHz, 0.25V | 20.9 | 8.0 | 8.0 |
| SDB0650□T4R7 | 4.7 | M | 100KHz, 0.25V | 30.3 | 7.0 | 6.5 |
| SDB0650□T5R6 | 5.6 | M | 100KHz, 0.25V | 34.4 | 7.0 | 6.0 |
| SDB0650□T6R8 | 6.8 | M | 100KHz, 0.25V | 44.6 | 5.5 | 5.5 |
| SDB0650□T8R2 | 8.2 | M | 100KHz, 0.25V | 50.7 | 5.0 | 5.0 |
| SDB0650□T100 | 10 | M | 100KHz, 0.25V | 71.3 | 4.5 | 4.5 |

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■Electrical Characteristics

SDB1040 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB1040□TR19 | 0.19 | M | 100KHz, 0.25V | 0.95 | 90.0 | 40.0 |
| SDB1040□TR22 | 0.22 | M | 100KHz, 0.25V | 0.95 | 90.0 | 40.0 |
| SDB1040□TR36 | 0.36 | M | 100KHz, 0.25V | 1.40 | 60.0 | 31.5 |
| SDB1040□TR47 | 0.47 | M | 100KHz, 0.25V | 1.60 | 38.0 | 26.0 |
| SDB1040□TR56 | 0.56 | M | 100KHz, 0.25V | 1.80 | 49.0 | 27.5 |
| SDB1040□TR68 | 0.68 | M | 100KHz, 0.25V | 2.40 | 42.0 | 23.0 |
| SDB1040□T1R0 | 1.0 | M | 100KHz, 0.25V | 4.10 | 36.0 | 17.5 |
| SDB1040□T1R5 | 1.5 | M | 100KHz, 0.25V | 5.80 | 27.5 | 15.0 |
| SDB1040□T2R2 | 2.2 | M | 100KHz, 0.25V | 9.00 | 25.6 | 12.0 |
| SDB1040□T3R3 | 3.3 | M | 100KHz, 0.25V | 11.80 | 18.6 | 10.0 |
| SDB1040□T4R7 | 4.7 | M | 100KHz, 0.25V | 16.50 | 17.0 | 9.5 |
| SDB1040□T5R6 | 5.6 | M | 100KHz, 0.25V | 19.30 | 16.0 | 8.5 |
| SDB1040□T6R8 | 6.8 | M | 100KHz, 0.25V | 23.30 | 13.5 | 8.0 |
| SDB1040□T100 | 10 | M | 100KHz, 0.25V | 36.50 | 12.0 | 6.8 |
| SDB1040□T150 | 15 | M | 100KHz, 0.25V | 60.00 | 8.0 | 5.0 |

SDB1340 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB1340□TR10 | 0.10 | M | 100KHz, 0.25V | 0.96 | 84.0 | 43.0 |
| SDB1340□TR15 | 0.15 | M | 100KHz, 0.25V | 1.20 | 75.0 | 41.0 |
| SDB1340□TR22 | 0.22 | M | 100KHz, 0.25V | 1.30 | 65.0 | 38.5 |
| SDB1340□TR33 | 0.33 | M | 100KHz, 0.25V | 1.50 | 62.0 | 36.5 |
| SDB1340□TR47 | 0.47 | M | 100KHz, 0.25V | 2.00 | 55.0 | 32.0 |
| SDB1340□TR60 | 0.60 | M | 100KHz, 0.25V | 2.20 | 51.0 | 29.0 |
| SDB1340□TR68 | 0.68 | M | 100KHz, 0.25V | 2.50 | 49.0 | 28.0 |
| SDB1340□TR82 | 0.82 | M | 100KHz, 0.25V | 3.00 | 44.0 | 25.0 |
| SDB1340□T1R0 | 1.0 | M | 100KHz, 0.25V | 3.50 | 40.0 | 24.0 |
| SDB1340□T1R5 | 1.5 | M | 100KHz, 0.25V | 5.50 | 35.0 | 19.0 |
| SDB1340□T1R8 | 1.8 | M | 100KHz, 0.25V | 7.00 | 30.0 | 16.5 |
| SDB1340□T2R2 | 2.2 | M | 100KHz, 0.25V | 8.00 | 29.0 | 16.0 |
| SDB1340□T3R3 | 3.3 | M | 100KHz, 0.25V | 12.00 | 27.0 | 12.0 |
| SDB1340□T4R7 | 4.7 | M | 100KHz, 0.25V | 15.00 | 24.0 | 10.0 |
| SDB1340□T5R6 | 5.6 | M | 100KHz, 0.25V | 19.00 | 19.0 | 9.5 |
| SDB1340□T6R8 | 6.8 | M | 100KHz, 0.25V | 22.00 | 18.0 | 9.0 |
| SDB1340□T8R2 | 8.2 | M | 100KHz, 0.25V | 28.00 | 16.0 | 8.5 |
| SDB1340□T100 | 10 | M | 100KHz, 0.25V | 34.00 | 14.0 | 7.0 |

Shielded Molding SMD Power Inductor

■Electrical Characteristics

SDB1350 Type(□:Tolerance):

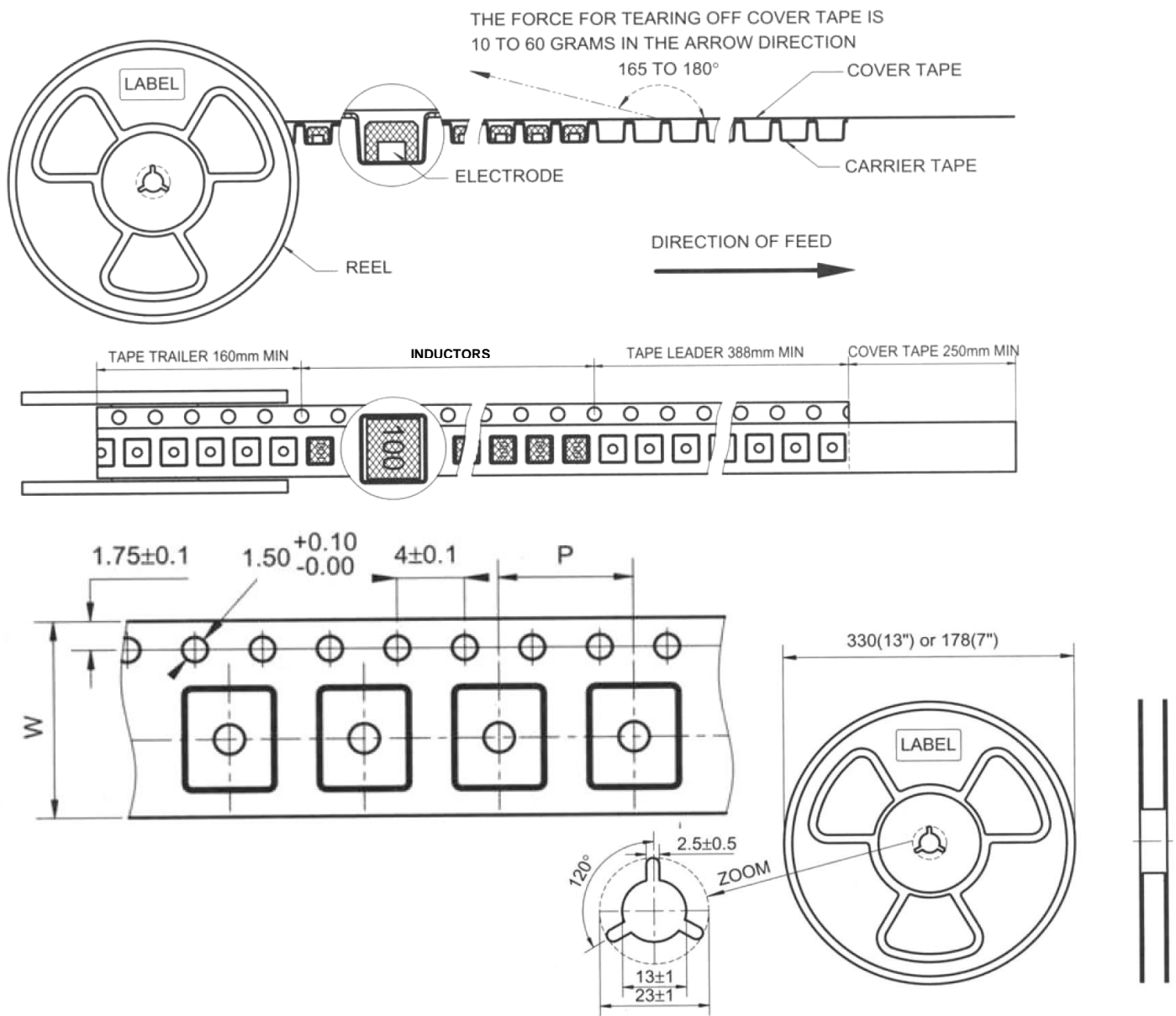
| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|--------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB1350□TR10 | 0.10 | M | 100KHz, 0.25V | 0.6 | 118.0 | 55.0 |
| SDB1350□TR22 | 0.22 | M | 100KHz, 0.25V | 0.8 | 110.0 | 51.0 |
| SDB1350□TR33 | 0.33 | M | 100KHz, 0.25V | 1.1 | 80.0 | 42.0 |
| SDB1350□TR47 | 0.47 | M | 100KHz, 0.25V | 1.3 | 65.0 | 38.0 |
| SDB1350□TR56 | 0.56 | M | 100KHz, 0.25V | 1.5 | 55.0 | 36.0 |
| SDB1350□TR68 | 0.68 | M | 100KHz, 0.25V | 1.7 | 54.0 | 34.0 |
| SDB1350□TR82 | 0.82 | M | 100KHz, 0.25V | 2.3 | 53.0 | 31.0 |
| SDB1350□T1R0 | 1.0 | M | 100KHz, 0.25V | 2.5 | 50.0 | 29.0 |
| SDB1350□T1R5 | 1.5 | M | 100KHz, 0.25V | 4.1 | 48.0 | 23.0 |
| SDB1350□T1R8 | 1.8 | M | 100KHz, 0.25V | 4.9 | 40.0 | 19.0 |
| SDB1350□T2R2 | 2.2 | M | 100KHz, 0.25V | 5.5 | 32.0 | 20.0 |
| SDB1350□T3R3 | 3.3 | M | 100KHz, 0.25V | 9.2 | 32.0 | 15.0 |
| SDB1350□T4R7 | 4.7 | M | 100KHz, 0.25V | 15.0 | 27.0 | 12.0 |
| SDB1350□T5R6 | 5.6 | M | 100KHz, 0.25V | 16.5 | 22.0 | 11.5 |
| SDB1350□T6R8 | 6.8 | M | 100KHz, 0.25V | 18.5 | 21.0 | 11.0 |
| SDB1350□T7R8 | 7.8 | M | 100KHz, 0.25V | 20.5 | 18.0 | 10.0 |
| SDB1350□T8R2 | 8.2 | M | 100KHz, 0.25V | 22.5 | 18.0 | 9.5 |
| SDB1350□T100 | 10 | M | 100KHz, 0.25V | 25.5 | 16.0 | 9.0 |

SDB1365 Type(□:Tolerance):

| Part No | Inductance (uH) | Tolerance | Test Condition | DCR (mΩ) Max. | Saturation Current (A) Max. | Temperature Rise Current (A) Max. |
|----------------|-----------------|-----------|----------------|---------------|-----------------------------|-----------------------------------|
| SDB1365□TR10 | 0.10 | M | 100KHz, 0.25V | 0.5 | 120.0 | 60.0 |
| SDB1365□TR15 | 0.15 | M | 100KHz, 0.25V | 0.6 | 118.0 | 55.0 |
| SDB1365□TR22 | 0.22 | M | 100KHz, 0.25V | 0.7 | 112.0 | 53.0 |
| SDB1365□TR30 | 0.30 | M | 100KHz, 0.25V | 0.8 | 72.0 | 48.0 |
| SDB1365□TR33 | 0.33 | M | 100KHz, 0.25V | 0.9 | 65.0 | 46.0 |
| SDB1365□TR40 | 0.40 | M | 100KHz, 0.25V | 1.0 | 64.0 | 44.0 |
| SDB1365□TR47 | 0.47 | M | 100KHz, 0.25V | 1.2 | 63.0 | 41.0 |
| SDB1365□TR56 | 0.56 | M | 100KHz, 0.25V | 1.4 | 62.0 | 37.0 |
| SDB1365□TR68 | 0.68 | M | 100KHz, 0.25V | 1.6 | 60.0 | 35.0 |
| SDB1365□TR82 | 0.82 | M | 100KHz, 0.25V | 1.9 | 50.0 | 33.0 |
| SDB1365□T1R0 | 1.0 | M | 100KHz, 0.25V | 2.0 | 49.0 | 32.0 |
| SDB1365□T1R0-1 | 1.0 | M | 100KHz, 1V | 2.0 | 49.0 | 32.0 |
| SDB1365□T1R2 | 1.2 | M | 100KHz, 0.25V | 2.5 | 48.0 | 30.0 |
| SDB1365□T1R5 | 1.5 | M | 100KHz, 0.25V | 3.0 | 45.0 | 27.0 |
| SDB1365□T1R8 | 1.8 | M | 100KHz, 0.25V | 3.2 | 41.0 | 24.0 |
| SDB1365□T2R2 | 2.2 | M | 100KHz, 0.25V | 4.2 | 40.0 | 22.0 |
| SDB1365□T3R3 | 3.3 | M | 100KHz, 0.25V | 6.8 | 35.0 | 18.0 |
| SDB1365□T4R7 | 4.7 | M | 100KHz, 0.25V | 8.7 | 32.0 | 13.5 |
| SDB1365□T5R6 | 5.6 | M | 100KHz, 0.25V | 10.0 | 32.0 | 13.5 |
| SDB1365□T6R8 | 6.8 | M | 100KHz, 0.25V | 14.0 | 16.5 | 11.5 |
| SDB1365□T8R2 | 8.2 | M | 100KHz, 0.25V | 15.5 | 16.0 | 10.5 |
| SDB1365□T100 | 10 | M | 100KHz, 0.25V | 17.2 | 15.5 | 10.0 |
| SDB1365□T100-1 | 10 | M | 100KHz, 1V | 17.2 | 15.5 | 10.0 |
| SDB1365□T220 | 22 | M | 100KHz, 0.25V | 40.0 | 10.0 | 10.0 |

Shielded Molding SMD Power Inductor

■Tape and Reel specifications



Unit: mm

| Type | Tape size | | Parts Per Reel |
|---------|-----------|----|----------------|
| | W | P | 13" |
| SDB0420 | 12 | 8 | 3500 |
| SDB0520 | 12 | 8 | 3000 |
| SDB0530 | 12 | 8 | 2500 |
| SDB0620 | 16 | 12 | 2000 |
| SDB0625 | 16 | 12 | 2000 |
| SDB0630 | 16 | 12 | 1500 |
| SDB0650 | 16 | 12 | 800 |
| SDB1040 | 24 | 16 | 800 |
| SDB1340 | 24 | 16 | 500 |
| SDB1350 | 24 | 16 | 500 |
| SDB1365 | 24 | 16 | 500 |

Shielded Molding SMD Power Inductor

■ General Characteristics

| Item | Requirement | Test Method | | | | | | | | | | | | | |
|------------------------|---|--|------|-----------------|-------------|---|---------|----|---|------------------|---|---|---------|----|---|
| Solderability | More than 90% of the terminal electrode should be covered with solder | 230±5°C for 4±1 seconds | | | | | | | | | | | | | |
| Solder Heat Resistance | Inductance within±20% of initial value No disconnection or short circuit The appearance shall not break | 260±5°C for 10±1 seconds | | | | | | | | | | | | | |
| Heat Resistance | | Temperature: 125±5°C Time: 500 hours Tested after 2 hour at room temperature | | | | | | | | | | | | | |
| Cold Resistance | | Temperature: -40±5°C Time: 500 hours Tested after 2 hour at room temperature | | | | | | | | | | | | | |
| Thermal Shock | | One cycle: | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature(°C)</th> <th>Time (min.)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-40±5°C</td> <td>30</td> </tr> <tr> <td>2</td> <td>Room temperature</td> <td>3</td> </tr> <tr> <td>3</td> <td>125±5°C</td> <td>30</td> </tr> <tr> <td>4</td> <td>Room temperature</td> <td>3</td> </tr> </tbody> </table> | Step | Temperature(°C) | Time (min.) | 1 | -40±5°C | 30 | 2 | Room temperature | 3 | 3 | 125±5°C | 30 | 4 |
| Step | Temperature(°C) | Time (min.) | | | | | | | | | | | | | |
| 1 | -40±5°C | 30 | | | | | | | | | | | | | |
| 2 | Room temperature | 3 | | | | | | | | | | | | | |
| 3 | 125±5°C | 30 | | | | | | | | | | | | | |
| 4 | Room temperature | 3 | | | | | | | | | | | | | |
| Humidity Resistance | Temperature: 40±2°C, 90~95% relative humidity Time: 500 hours Tested after 2 hour at room temperature | | | | | | | | | | | | | | |
| Vibration Test | Inductance within±5% of initial value The appearance shall not break | After vibration for 1hour, in each of three orientations at sweep vibration (10~55~10Hz) with 1.52mm P-P amplitudes | | | | | | | | | | | | | |

The condition of reflow (recommendation):

